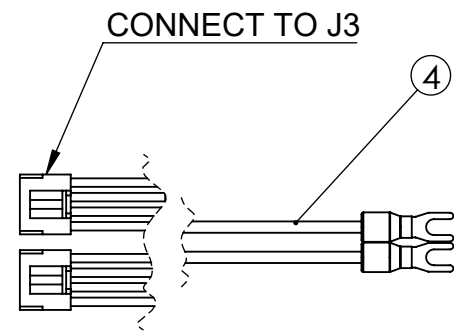
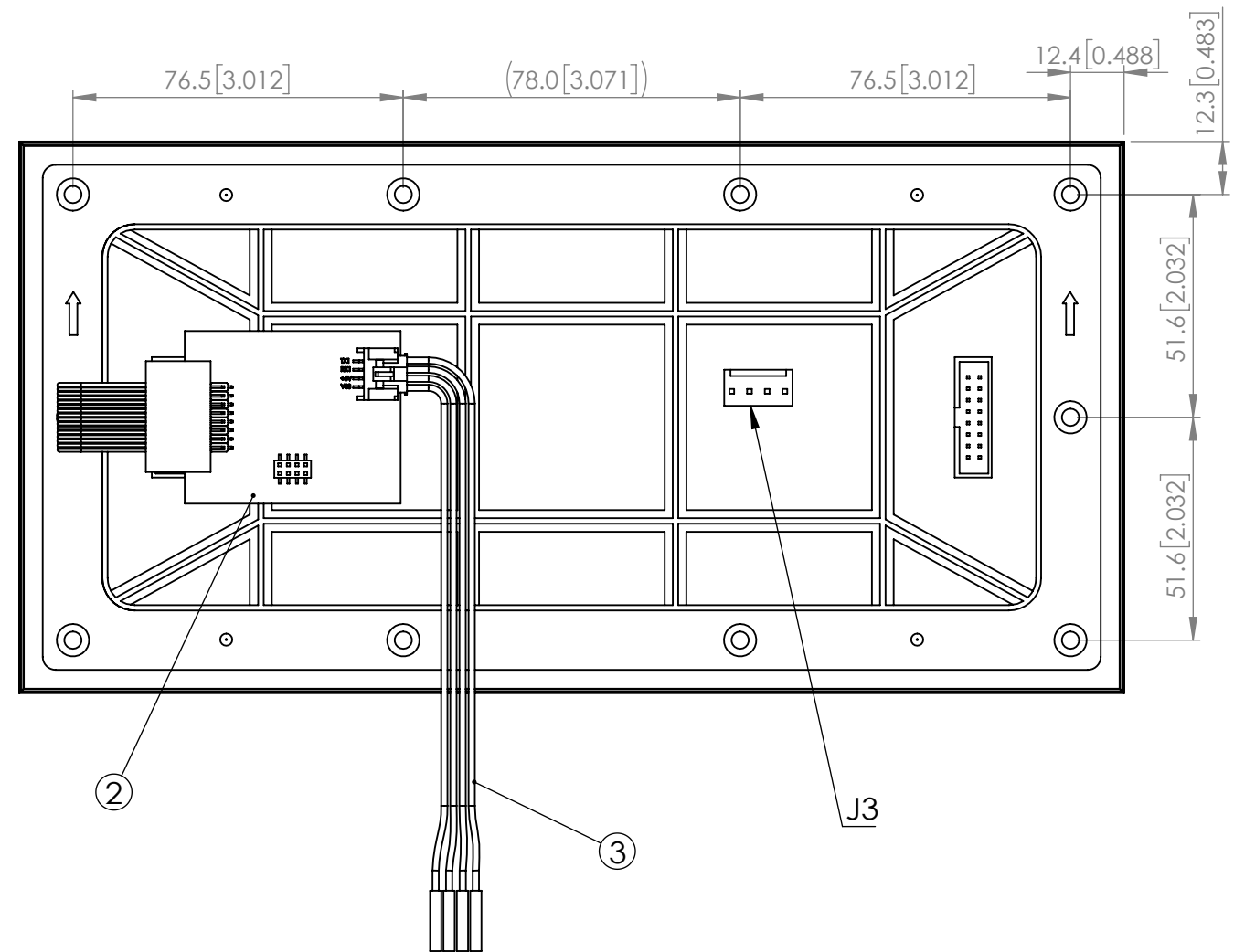
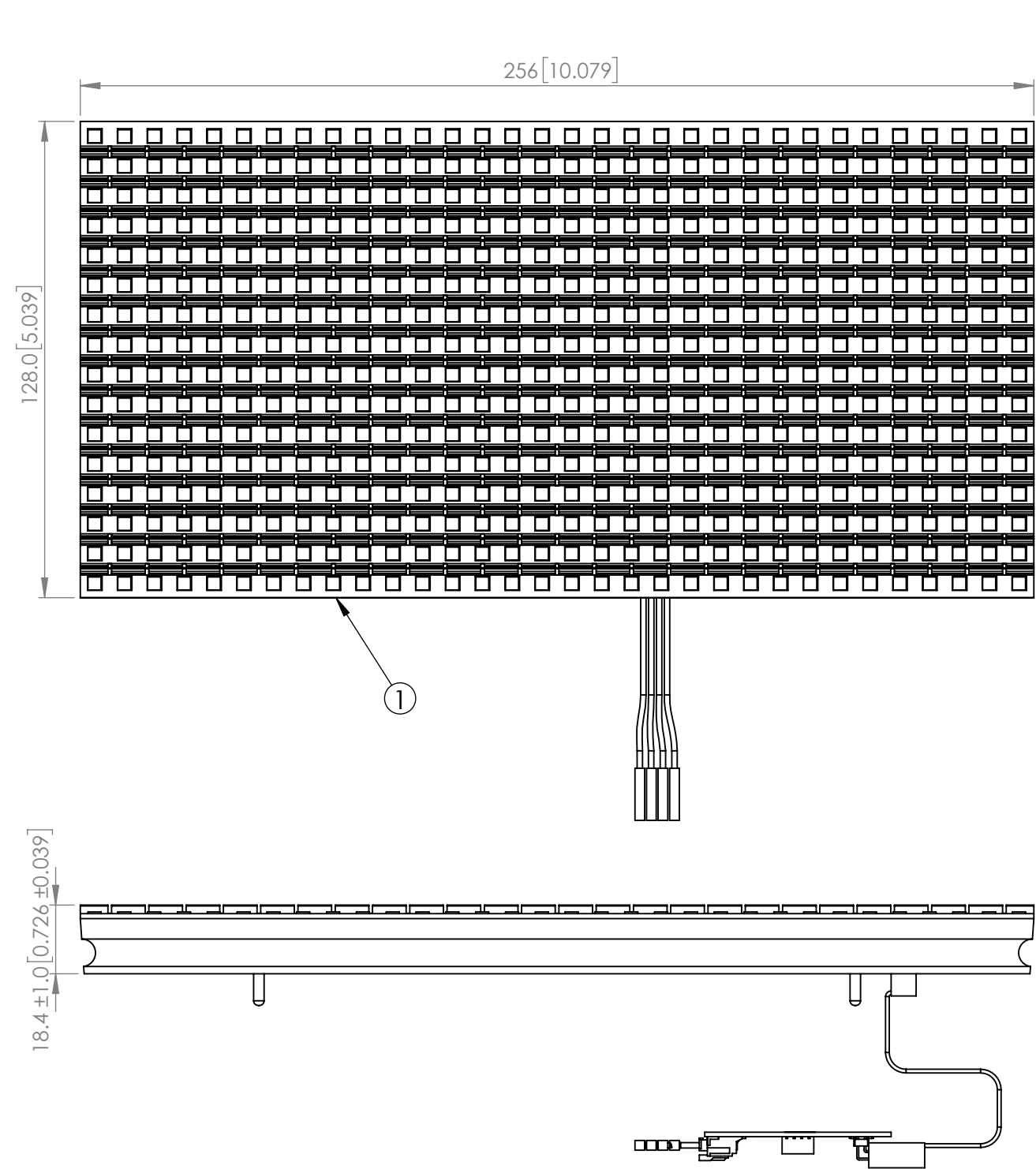


|             |                                     |                |     |          |
|-------------|-------------------------------------|----------------|-----|----------|
| PART NUMBER |                                     | LDM-3216-P8-UR | REV | A        |
| REV         | E.C.N. NUMBER AND REVISION COMMENTS |                |     | DATE     |
| A           | ECN-Lumex202000076                  |                |     | 11.28.20 |



#### COMPONENT

| ITEM | P/N                | QTY. |
|------|--------------------|------|
| 1    | LDM-3216-P8-PCB    | 1    |
| 2    | LDM-3216-1LT-RGB-E | 1    |
| 3    | WIRE002            | 1    |
| 4    | WIRE008            | 1    |

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ezDisplay P8 OUTDOOR DOT MATRIX, 32\*16 PIXEL, RGB LEDs, UART INTERFACE.

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SCALE : NTF

APRVD BY : G.Y.

UNIT : mm [INCH]



GENERAL SPECIFICATION

| ITEM                 | DESCRIPTION       | UNIT   |
|----------------------|-------------------|--------|
| MODULE SIZE          | 256(L) ×128(W)    | mm     |
| PIXEL PITCH          | 8                 | mm     |
| PIXEL FORM           | RGB               | --     |
| PIXEL DENSITY        | 111111            | dot/m2 |
| MODULE RESOLUTION    | 32x16             | dot    |
| DRIVE METHOD         | 1/4 SCAN          | --     |
| CONTROLLER INTERFACE | UART              | --     |
| POWER CONSUMPTION    | 30 MAX            | W      |
| BRIGHTNESS           | 5000 MIN          | cd/m2  |
| TEMPERATURE RANGE    | -30~60, 10%~95%RH | °C     |
| FRAME COLOR          | BLACK             | °C     |

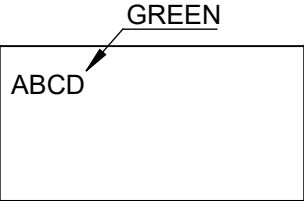
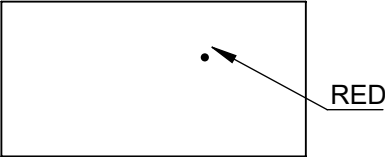
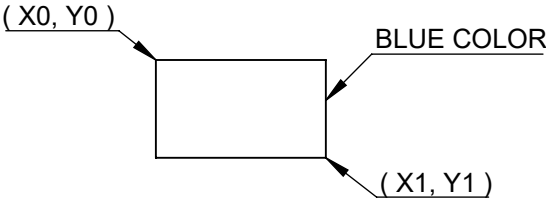
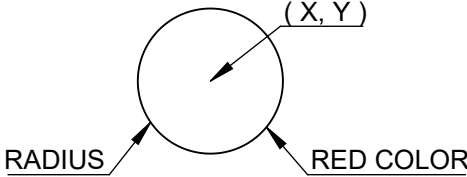
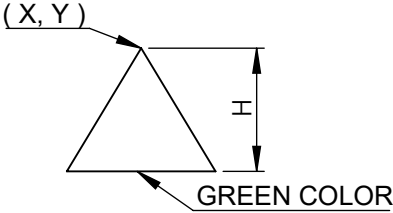
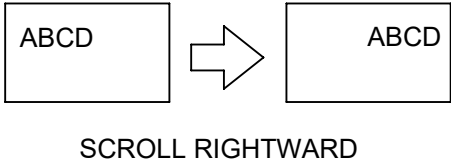
WIRELEAD DEFINITION

| P/N     | COLOR  | DEFINITION |
|---------|--------|------------|
| WIRE001 | YELLOW | TX1        |
|         | WHITE  | RX1        |
|         | RED    | 5V         |
|         | BLACK  | GND        |

UART CONFIGURATION

| ITEM         | SETING VALUE |
|--------------|--------------|
| BAUD RATE    | 115200       |
| DATA BIT     | 8            |
| STOP BIT     | 1            |
| PARITY BIT   | NONE         |
| FLOW CONTROL | NONE         |

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|                                                                                     |  |                                    |                                                                                                                                    | PART NUMBER | LDM-3216-P8-UR | REV | A |
|-------------------------------------------------------------------------------------|--|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|-----|---|
| DIAGRAM                                                                             |  | COMMAND*                           | EXAMPLE                                                                                                                            |             |                |     |   |
|    |  | Write a 5x7 RGB String             | <b>ate1</b> =(line,column, <b>Color 0~255*</b> ,String)<br><b>ate1</b> =(0,0,4,ABCD)                                               |             |                |     |   |
|    |  | Set a Color Pixel                  | <b>atee</b> =(X position,Y position, <b>Color 0~255*</b> )<br><b>atee</b> =(48,6,96) : '96' Red color                              |             |                |     |   |
|   |  | Draw a Rectangle                   | <b>at91</b> =(X0 position,Y0 position,X1 position,Y1 position, <b>Color 0~255*</b> )<br><b>at91</b> =(0,0,55,7,2) : '2' blue color |             |                |     |   |
|   |  | Draw a Circle                      | <b>at94</b> =(X position,Y position,Radius, <b>Color 0~255*</b> )<br><b>at94</b> =(48,4,3,64) : '64' red color                     |             |                |     |   |
|  |  | Draw a tip upward Triangle         | <b>at96</b> =(X position,Y position,Height, <b>Color 0~255*</b> )<br><b>at96</b> =(48,1,3,4) : '4' green color                     |             |                |     |   |
|  |  | Scroll the whole display rightward | <b>atd5</b> =(shif time in ms)<br><b>atd5</b> =(20)                                                                                |             |                |     |   |

\* Please refer to detail commands/ **COLOR CODE Table** on Lumex website: [www.lumex.com/ezdisplay](http://www.lumex.com/ezdisplay)

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|                                                                                     |                                                                                                                 |                                                                                                                                                                                                                                                                                                                              |  |                  |                                                                                       |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|---------------------------------------------------------------------------------------|
|  | 425 N. GARY AVE.<br>CAROL STREAM, IL 60188<br>PHONE : 800-278-5666<br>FAX : 630-315-2150<br>WEB : WWW.LUMEX.COM | ezDisplay P8 OUTDOOR DOT MATRIX, 32*16 PIXEL, RGB LEDs, UART INTERFACE.                                                                                                                                                                                                                                                      |  | DATE : 11.28.20  | DRAWN BY : E.C.                                                                       |
|                                                                                     |                                                                                                                 | **THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.**                                                                                                                                                                                                                    |  | PAGE : 3 OF 5    | CHKD BY : E.C.                                                                        |
|                                                                                     |                                                                                                                 | CONFIDENTIAL INFORMATION                                                                                                                                                                                                                                                                                                     |  | SCALE : NTF      | APRVD BY : G.Y.                                                                       |
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|                                                                                     |                                                                                                                 |                                                                                                                                                                                                                                                                                                                              |  |                  |                                                                                       |

## COLOR CODE TABLE

|    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0  | 1  | 2  | 3  | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  |
| 32 | 33 | 34 | 35 | 36  | 37  | 38  | 39  | 40  | 41  | 42  | 43  | 44  | 45  | 46  | 47  |
| 64 | 65 | 66 | 67 | 68  | 69  | 70  | 71  | 72  | 73  | 74  | 75  | 76  | 77  | 78  | 79  |
| 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 |

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SCALE : NTF

APRVD BY : G.Y.

UNIT : mm [INCH]



ASCII CODE OF 5X7 FONTS AND 8X16 FONTS

|      |        |      |        |      |        |
|------|--------|------|--------|------|--------|
| Hex  | Symbol | Hex  | Symbol | Hex  | Symbol |
| 0x20 |        | 0x40 | @      | 0x60 | `      |
| 0x21 | !      | 0x41 | A      | 0x61 | a      |
| 0x22 | "      | 0x42 | B      | 0x62 | b      |
| 0x23 | #      | 0x43 | C      | 0x63 | c      |
| 0x24 | \$     | 0x44 | D      | 0x64 | d      |
| 0x25 | %      | 0x45 | E      | 0x65 | e      |
| 0x26 | &      | 0x46 | F      | 0x66 | f      |
| 0x27 |        | 0x47 | G      | 0x67 | g      |
| 0x28 | (      | 0x48 | H      | 0x68 | h      |
| 0x29 | )      | 0x49 | I      | 0x69 | i      |
| 0x2a | *      | 0x4a | J      | 0x6a | j      |
| 0x2b | +      | 0x4b | K      | 0x6b | k      |
| 0x2c | ,      | 0x4c | L      | 0x6c | l      |
| 0x2d | -      | 0x4d | M      | 0x6d | m      |
| 0x2e | .      | 0x4e | N      | 0x6e | n      |
| 0x2f |        | 0x4f | O      | 0x6f | o      |
| 0x30 | 0      | 0x50 | P      | 0x70 | p      |
| 0x31 | 1      | 0x51 | Q      | 0x71 | q      |
| 0x32 | 2      | 0x52 | R      | 0x72 | r      |
| 0x33 | 3      | 0x53 | S      | 0x73 | s      |
| 0x34 | 4      | 0x54 | T      | 0x74 | t      |
| 0x35 | 5      | 0x55 | U      | 0x75 | u      |
| 0x36 | 6      | 0x56 | V      | 0x76 | v      |
| 0x37 | 7      | 0x57 | W      | 0x77 | w      |
| 0x38 | 8      | 0x58 | X      | 0x78 | x      |
| 0x39 | 9      | 0x59 | Y      | 0x79 | y      |
| 0x3a | :      | 0x5a | Z      | 0x7a | z      |
| 0x3b | ;      | 0x5b | ]      | 0x7a | {      |
| 0x3c | <      | 0x5c | \      | 0x7a |        |
| 0x3d | =      | 0x5d | [      | 0x7a | }      |
| 0x3e | >      | 0x5e | ^      | 0x7a | ~      |
| 0x3f | ?      | 0x5f | _      | 0x7a | <-     |

ASCII code of 16X16 fonts

|      |        |
|------|--------|
| Hex  | Symbol |
| 0x30 | 0      |
| 0x31 | 1      |
| 0x32 | 2      |
| 0x33 | 3      |
| 0x34 | 4      |
| 0x35 | 5      |
| 0x36 | 6      |
| 0x37 | 7      |
| 0x38 | 8      |
| 0x39 | 9      |

No. of 8X16 pattern

|     |        |
|-----|--------|
| No. | Symbol |
| 0   | 0      |
| 1   | 1      |
| 2   | 2      |
| 3   | 3      |
| 4   | 4      |
| 5   | 5      |
| 6   | 6      |
| 7   | 7      |
| 8   | 8      |
| 9   | 9      |

No. of 32X32 pattern

|     |        |
|-----|--------|
| No. | Symbol |
| 0   | 0      |
| 1   | 1      |
| 2   | 2      |
| 3   | 3      |
| 4   | 4      |
| 5   | 5      |
| 6   | 6      |
| 7   | 7      |
| 8   | 8      |
| 9   | 9      |
| 10  | °C     |
| 11  | °F     |
| 12  | ☼      |

No. of 8X8 pattern

|     |        |
|-----|--------|
| No. | Symbol |
| 0   | 0      |
| 1   | 1      |
| 2   | 2      |
| 3   | 3      |
| 4   | 4      |
| 5   | 5      |
| 6   | 6      |
| 7   | 7      |
| 8   | 8      |
| 9   | 9      |

No. of 16X16 pattern

|     |        |
|-----|--------|
| No. | Symbol |
| 0   | 0      |
| 1   | 1      |
| 2   | 2      |
| 3   | 3      |
| 4   | 4      |
| 5   | 5      |
| 6   | 6      |
| 7   | 7      |
| 8   | 8      |
| 9   | 9      |

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